

MULTIBAND MIMO-BASED 3G W-CDMA
AND UWB COMMUNICATIONS

Abstract of the Disclosure

This invention disclosure presents a multiband MIMO-based 3G W-CDMA and UWB communications for a wireless and
5 fixed wireless communication. The entire system includes a 3G W-CDMA base station, an UWB base station, and p-user dual-mode portable station of 3G W-CDMA and UWB. Four OFDM multi-frequency bands are employed for UWB communication, with each of the multi-frequency bands having a 512 MHz
10 bandwidth. The QPSK modulation is used for the dual-mode transceivers of 3G W-CDMA and UWB communications. This system allows N multiuser to transmit and receiver multimedia information data based on either 3G W-CDMA or UWB communications.